Land Use and Environmental Scan

4.1 Introduction

The US 95 Corridor study area is located in Kootenai County, ID. The study area includes lands from Post Falls north along SH-41 to Rathdrum, east along SH-53 to Government Way, then south to the communities of Hayden and Dalton Gardens, then further south to include portions of Coeur d'Alene and Fernan Lake Village along US 95 to Mica (See **Figure 4-1**). The purpose of the environmental scan is to conduct an inventory of land use, hydrology, cultural, and historical factors, geology, biological characteristics, and other factors to identify key elements that are critical to transportation planning in the study corridor.

This document summarizes the most critical environmental planning factors that could influence the analysis and development of improvement options for the corridor, including land use, natural, and physical environmental factors. **Appendix C** provides a detailed inventory of the environmental factors by topic and Figures of many of the human and natural resources.

The environmental scan is organized into two major study elements, human and natural. In general, the pattern of new commercial and residential development within the study area over the past decade has been concentrated in the US 95 corridor. This pattern has resulted in concern about adequate traffic flow and ease of access within and among the communities east and west of the corridor.

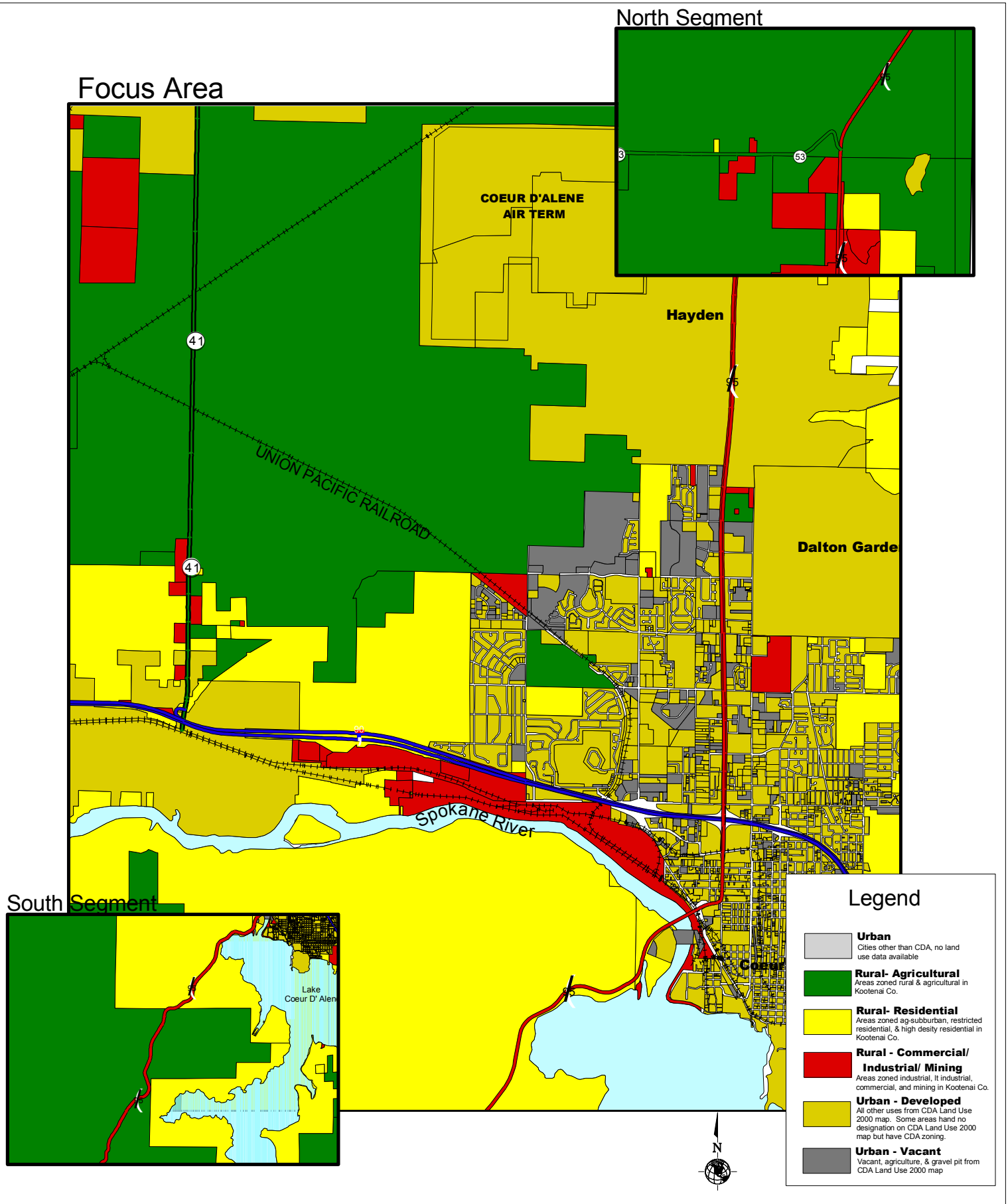
Because of the region's rapid population and employment growth, increased traffic volumes, and the density of development along US 95, the need to maintain transportation mobility north to south and east to west throughout the study area is crucial. The current pattern of development reflects intense auto-oriented development along the corridor and around the interchanges with I-90, and relatively undeveloped land south of Coeur d'Alene and west within the Rathdrum Prairie. Limited opportunities exist for additional north-south highways, so it may be important to consider options for accommodation of traffic or placement of new retail centers that could relieve some local traffic in the primary corridor.

Protection of the critical recharge areas for the Rathdrum Prairie/Spokane Valley aquifer, the region's drinking water supply, is one of the most critical planning factors for the western portion of the study area and the health of major rivers and lakes.

4.2 Human Elements

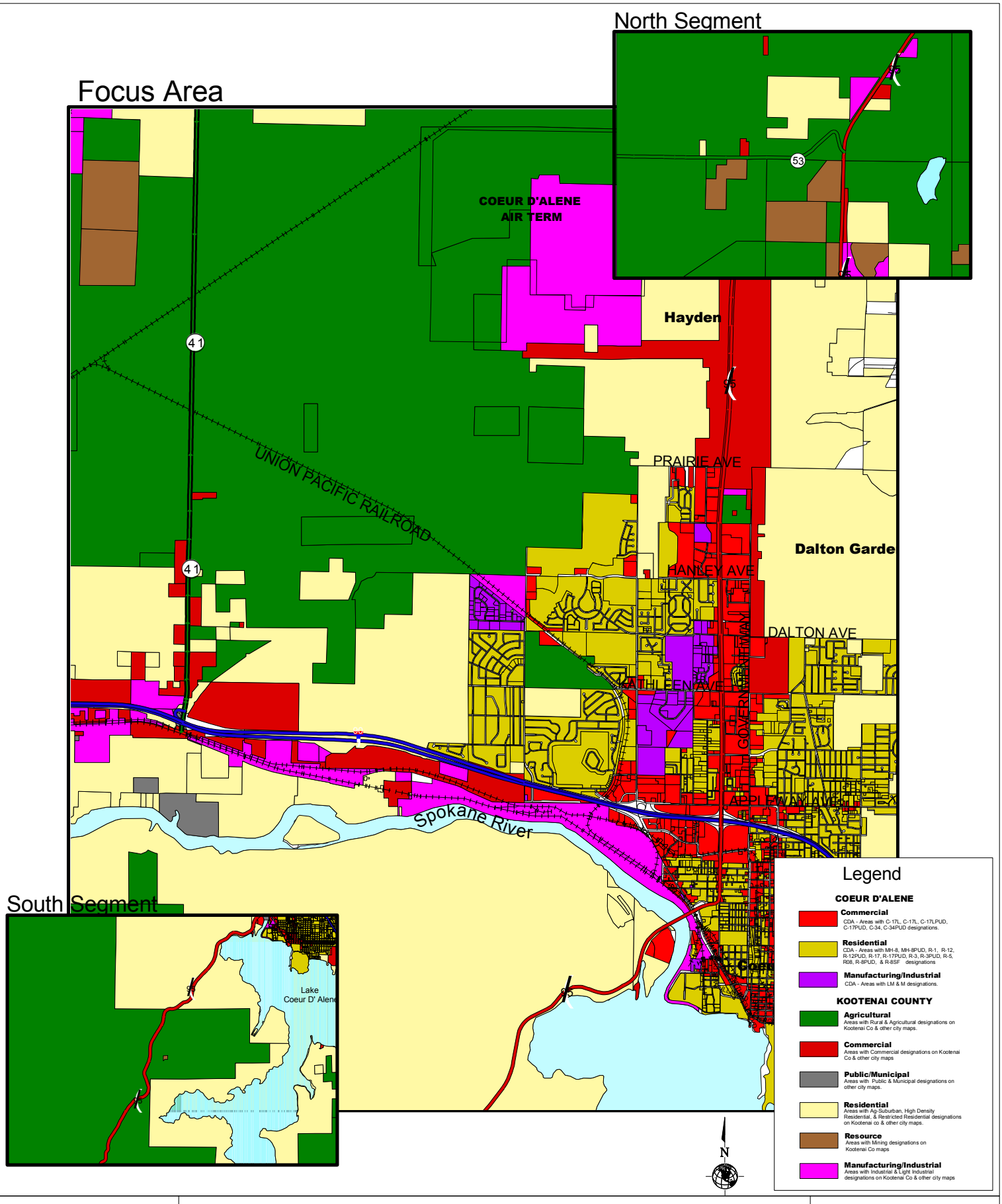
Existing Land Use and Zoning

Figure 4-2 shows generalized current Kootenai County zoning and existing zoning for area communities. Zoning was used as a reasonable surrogate source of land use information, because only Coeur d'Alene maintains an inventory of existing land use.



Map 4-1

Study Area Existing Land Use



Map 4-2

Study Area Zoning

The rolling hills and steep uplands in the southern part of the study area, near the Mica Flats area, are zoned for agriculture and rural use. Grazing and some cultivated fields are the primary agricultural uses. Rural-residential is the predominant use classification from Mica Flats to the Spokane River, and the area includes scattered single-family dwellings at rural sites. Prime farmlands within the study area are illustrated in **Figure 4-3**. Both managed and unmanaged forestlands are scattered throughout this area. Ponderosa pine (*Pinus ponderosa*) and Douglas fir (*Pseudotsuga menziesii*) communities are the most prevalent. The forestland and topography south of the Spokane River create a significant challenge for development and transportation improvements in this area.

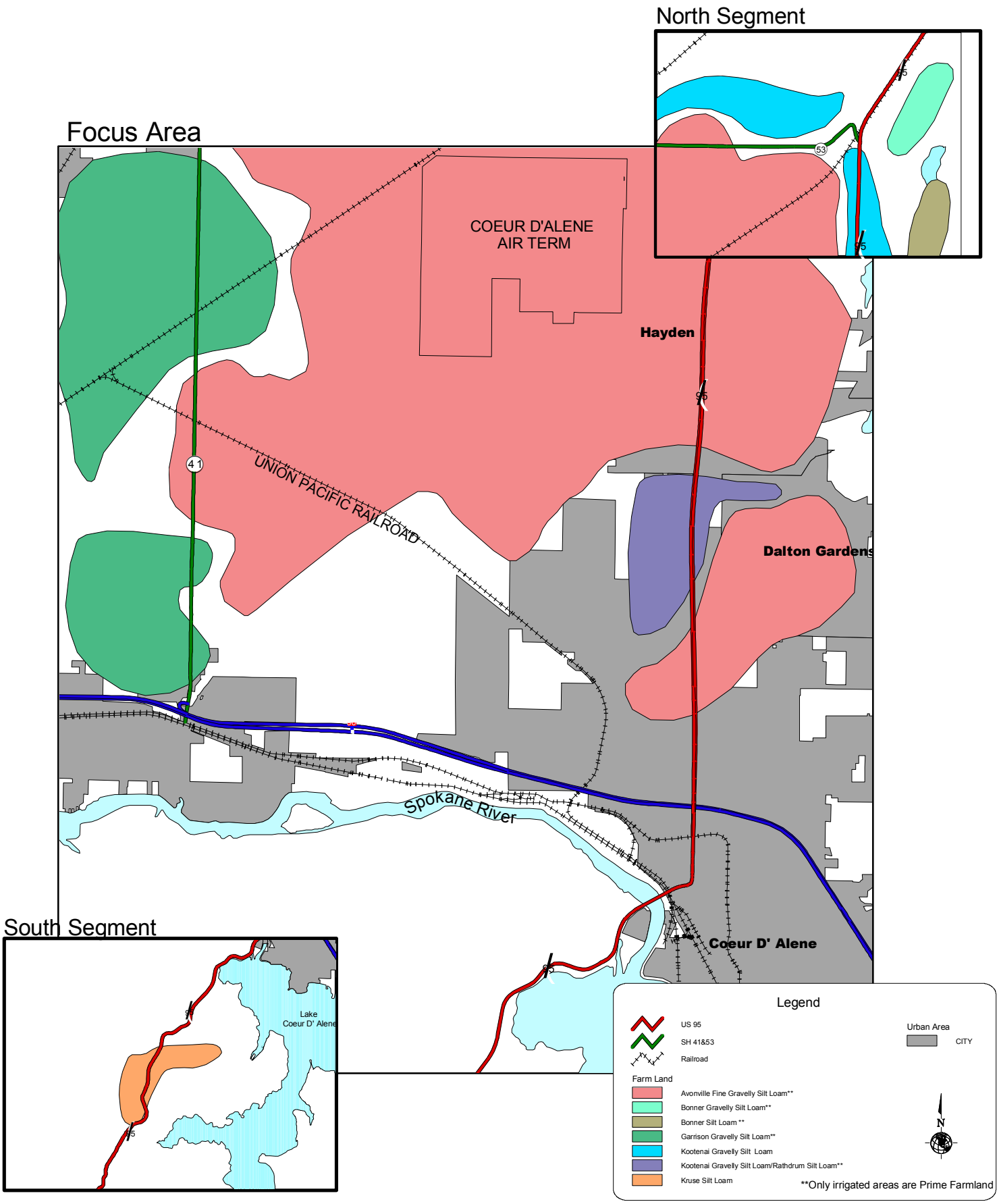
The US 95 corridor north of the Spokane River within the study area is highly developed. The main commercial areas border the existing highways and interstates. Residential zoning extends outward from these commercially zoned areas. Areas zoned for manufacturing and industrial use are scattered along I-90, SH-53, and the northern stretch of US 95. Most land use in Coeur d'Alene is residential and commercial, although there are some vacant lands within the City limits.

The I-90/US 95 interchange is located in Coeur d'Alene on the north side of the Spokane River. I-90 provides through-traffic and freight access to the states of Washington and Montana. I-90 is also a heavily used east-west commuter route between the US 95 corridor study area and Spokane, WA, and provides easy access to Post Falls. Between Post Falls and Coeur d'Alene, I-90 is mostly urban, with a small section of rural-residential property separating the two cities. Numerous specialty retail, service, and industrial facilities are located along I-90 in Post Falls. Single- and multi-family residential development exists primarily east and west of US 95 between I-90 and Prairie Road, while some resource and agricultural lands are located in the central part of the Rathdrum Prairie.

Two major north-south highways, US 95 and SH-41, provide access from I-90 and Coeur d'Alene to the Rathdrum Prairie. SH-41 lies west of US 95 and runs from I-90 through the Rathdrum Prairie to Rathdrum. US 95 connects the cities of Coeur d'Alene and Hayden within the study area. Government Way, a parallel route located immediately to the east of US 95, links Dalton Gardens with Coeur d'Alene and Hayden. Land use in the area along US 95 is primarily urban commercial, with some areas zoned as industrial near the north end of the study area.

In general, commercial retail and service uses are concentrated along US 95, Government Way, and Appleway Avenue. The uses are auto-oriented and include major national retail chains, such as Albertson's, Target, Office Depot, J.C. Penney, Safeway, and numerous fast-food chains. This concentration of retail and service uses along the highway and adjoining streets results in a high dependence on the automobile to meet daily shopping needs for community members. SH-53 runs east-west and connects US 95 and SH-41 in the northern portion of the study area. Other than the City of Rathdrum, a higher-density residential area, the rest of the corridor is mostly zoned rural-residential or rural-agricultural.

Based on the planned land use patterns that will concentrate future commercial growth along US 95, it is expected that area residents will continue to rely heavily on vehicle use within the corridor to meet shopping needs. Kootenai County's population is projected to increase by more than 40 percent within the next 20 years. Continued residential development will result in greater reliance on shopping and services within the US 95 corridor between Coeur d'Alene and Prairie Avenue.



Map 4-3

Prime Farm Land

Major Utilities

Electricity is supplied by Avista Utilities and the Kootenai Electric Cooperative via several distribution lines. The Bonneville Power Administration (BPA) owns several large power transmission lines throughout the corridor. Avista also supplies natural gas to the area. A Pacific Gas and Transmission – Northwest gas pipeline runs northeast to southwest, southeast of Rathdrum (Bureau of Land Management [BLM] 1996). The Williams and Yellowstone gas pipelines run east to west across the northern parts of Post Falls and Coeur d'Alene (BLM 1996).

Qwest Communications is the most prevalent telecommunications provider in the corridor. AT&T, MCI, and Sprint are the three main long-distance telephone service providers.

Water service is provided by the cities and special districts. The primary water source is the Rathdrum Prairie aquifer (see **Figure 4-4**). Major utility corridors within the US 95 corridor are depicted in **Figure 4-5**.

Rail and Air Transportation

Figure 4-5 illustrates the location of major railroads and airports within the study area. The railroad and airport facilities may present obstructions to connectivity and improvement of streets through the corridor.

Railroads

Three major railroad companies maintain several miles of track across the Rathdrum Prairie. A historical railroad grade is all that remains from the abandoned CMSP&M Railway, which served Rathdrum in the early 1900s. The active Burlington Northern (formerly Northern Pacific) Railroad runs southwest to northeast through the city of Rathdrum. The Union Pacific Railroad maintains several miles of track connecting Coeur d'Alene and other area cities on the Rathdrum Prairie. It runs in the southwest to northeast and northwest to southeast directions. The Burlington Northern Railroad connects Post Falls and Coeur d'Alene, running along the Spokane River.

The ITD and the Spokane Regional Transportation Council (SRTC) are currently participating in a study called "Bridging the Valley," regarding railroad consolidation. The study is investigating possible consolidation of railroad facilities and moving Union Pacific rail traffic into the Burlington Northern corridor. This study will significantly affect spurs and mainlines for both companies. There is also community interest regarding converting unused railway right-of-way into trails for public use via the Rails-to-Trails program.

Airports

The Coeur d'Alene Airport, located on the outskirts of Hayden, is the only major air terminal in the US 95 corridor. At this time, the airport serves corporate and private aircraft and no commercial airlines service the Coeur d'Alene Airport. The airport and its location provide an opportunity for the development of an intermodal freight transfer facility. There is expressed interest in expanding the airport and growing air freight services in the region. The location of the airport limits the extension of some streets to the north, such as Ramsey and Huetter Roads.

Cultural and Historic Resources

Railroads on the Rathdrum Prairie may have historic significance under Section 106 of the National Historic Preservation Act. If determined eligible for the National Register of Historic Places, the railroads could potentially constitute 4(f) properties.

4.3 Natural Elements

Water Resources

The water resources that were examined for this study are noted in **Appendix C** and include rivers; streams; creeks; lakes; wetlands; aquifers; Critical Aquifer Recharge Areas (CARAs); and water quality of the rivers, lakes, and aquifers. This section summarizes those resources that will likely influence transportation options.

Rivers, Lakes, and Creeks

The surface water features in the southern half of the corridor drain toward Mica Bay and include Mica Creek, the North Fork of Mica Creek, and Cougar Creek. The Spokane River drains Lake Coeur d'Alene near Cougar Bay. The Spokane River flows from its source near Coeur d'Alene westward toward Post Falls. Cedar Creek is the only major tributary of the Spokane River within study area boundaries. The streams and lakes of the region contribute greatly to the natural beauty and setting of the Coeur d'Alene area.

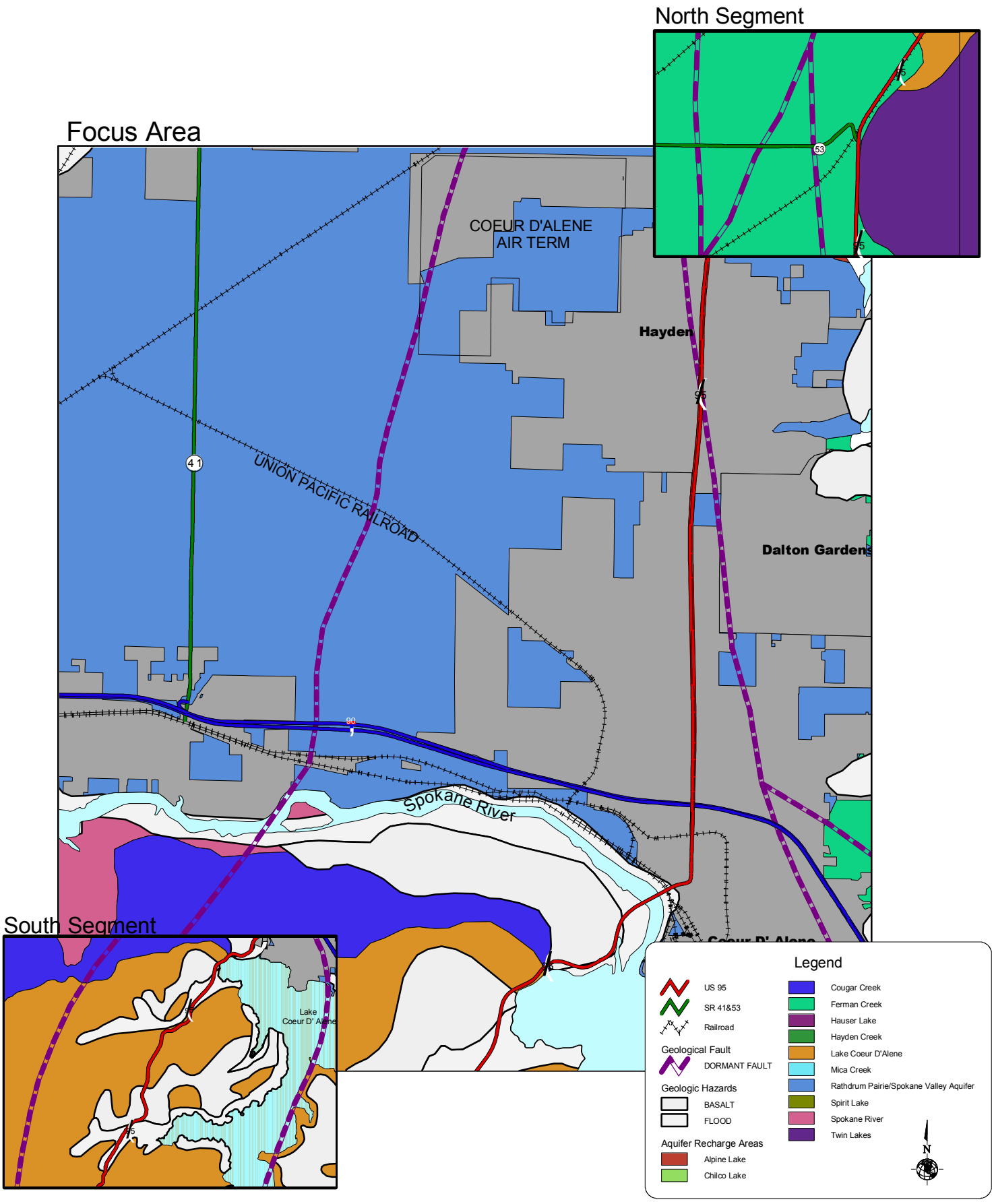
The northern half of the study area east of US 95 includes intermittent creeks feeding Alpine, Hayden, and Avondale Lakes and scattered palustrine wetlands. Hayden, Avondale, and Alpine Lakes border the study area to the northeast. Rathdrum Creek drains Twin Lakes and flows south through Rathdrum. Spring Branch Creek joins Rathdrum Creek from the northwest near the outskirts of Rathdrum. In Rathdrum, Rathdrum Creek recharges the aquifer in the Rathrum area. This portion of the study area is flat, and is used primarily for agriculture or residences.

Groundwater

The northern and western portion of the study area is underlain by the Rathdrum Prairie/Spokane Valley Aquifer (see **Figure 4-4**). This feature, formed during the last ice age more than 12,000 years ago, is composed of sand, gravel, cobble, and other glacial outwash; and is very permeable. Because of its permeability and groundwater velocity, the aquifer is highly susceptible to contamination.

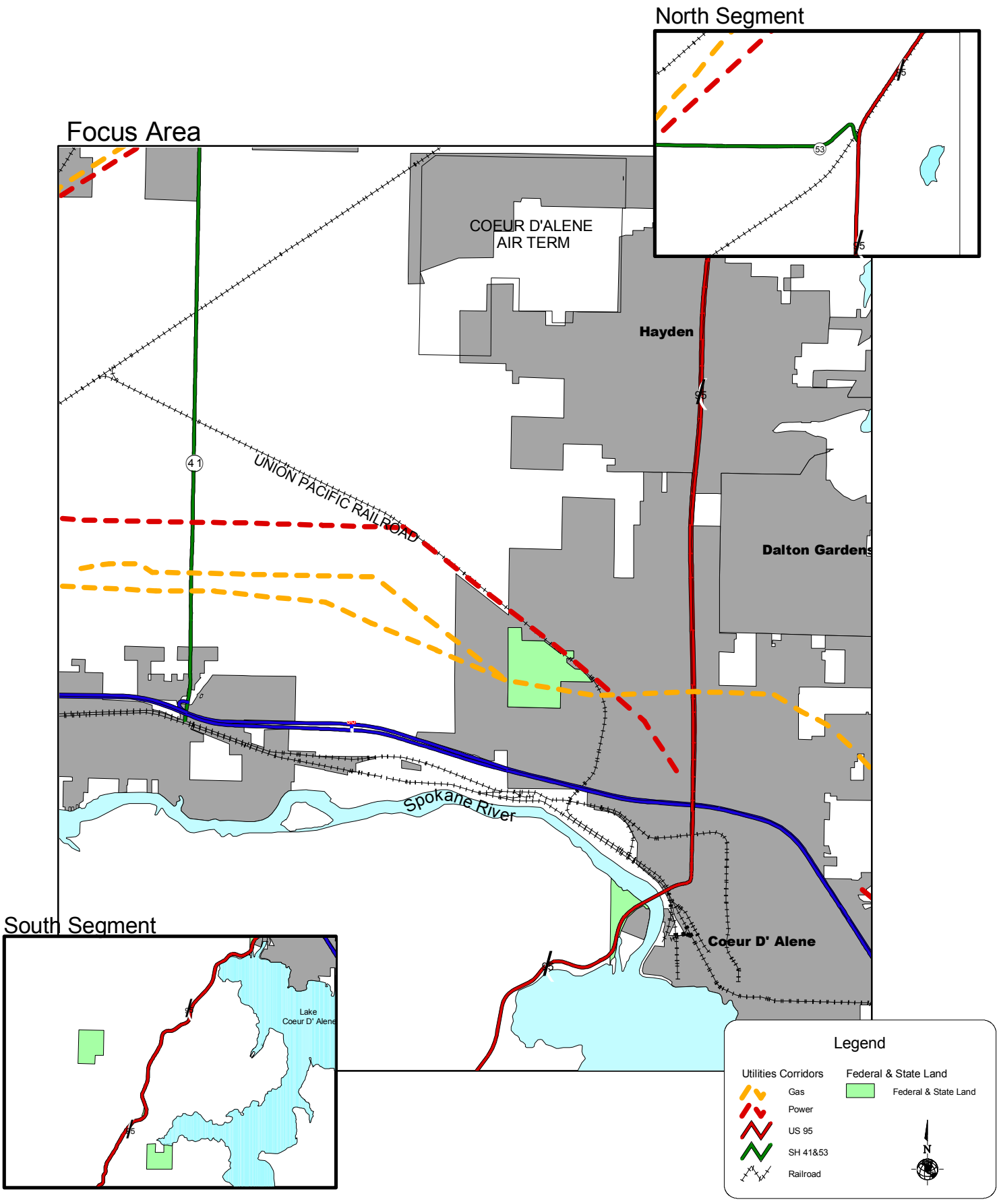
CARAs include the Spokane River, Lake Coeur d'Alene, and the watersheds of Hayden and Avondale Lakes. Lake Coeur d'Alene and the Spokane River contribute about one-third of the water flow in the aquifer. Development can interrupt the recharge process by increasing the amount of impervious surface above the aquifer. Development around a CARA requires careful planning to ensure water quality is not compromised.

Movement of the Rathdrum Prairie Aquifer groundwater ranges anywhere from 1 to 50 feet per day, westward from Idaho to Washington. The depth to the water table ranges from around 100 to 400 feet below the surface in Idaho (Panhandle Health District 2000).



Map 4-4

Geologic & Water Features



Map 4-5

Land Ownership & Utility Corridors

Aquifer Management

In 1978, the Rathdrum Prairie/Spokane Valley Aquifer was declared a "sole source" drinking water supply pursuant to Section 1424e of the federal Safe Drinking Water Act (P.L. 93-523). This designation requires all federally assisted projects to use aquifer protection measures. In addition, it proclaims the significance of this groundwater resource to the region, and provides support for local protection efforts. In 1980, the Rathdrum Prairie/Spokane Valley Aquifer was designated as a Special Resource Water in the Idaho Water Quality Standards and Wastewater Treatment Requirements. This resulted in increased protection for this resource (Panhandle Health District 2000). Hayden Lake is the other Special Resource Water within the study area, because of its recharge potential for the aquifer (State of Idaho 2001).

Hazardous and Waste Materials Considerations

The location of existing public water supply facilities will likely be considered when establishing plans for growth. Protection of the groundwater resource maintains a useable supply of water. According to a report published by the Department of Environmental Quality (DEQ) in 1991, potential sources for groundwater contamination were: activities that use agricultural chemicals, petroleum handling and storage, landfills, hazardous materials and transportation/spills, and subsurface sewage disposal systems (DEQ 1991). Prevention of water quality degradation through careful planning and consultation with water quality officials is a top priority for Kootenai County and the entire study region.

Feasibility studies are being conducted to evaluate land application of treated wastewater as a method of summer disposal. Certain agricultural areas should be set aside for land application activities, with appropriate buffer zones if needed. According to the Idaho Department of Environmental Quality (IDEQ), special considerations for any CARA may be needed in future land use planning efforts (DEQ 1991).

Topography and Geologic Hazards

Although terrain and geology influence highway location and design, they are not the overriding critical factors for the US 95 corridor options. No major faults or seismic zones are located within the primary corridor, and flood zones are associated only with the major rivers (see **Figure 4-4**). Of particular concern in Kootenai County are areas underlain by the Columbia River Basalt group and Latah Formation. The Latah Formation Interbeds consist of weak materials that often become unstable when accompanied by steep slope conditions or various development activities. In some areas, these interbeds are beneath Columbia River Basalt, creating a weak surface upon which these rock formations are able to move. Many of the steeper slopes around Lake Coeur d'Alene have these characteristics and a history of landslides.

Biological Resources

This study examined vegetation types, unique wildlife habitat, and locations of threatened or endangered species (see **Appendix C**).

Because of urbanization, unique or important wildlife habitat north of the Spokane River is almost non-existent. White-tailed deer (*Odocoileus virginianus*) are known to cross US 95 north of Hayden; however, there are no known wildlife corridors in the region, and no deer or elk winter range is located within the study area (Corsi 2001).

The large wetland in the Cougar Bay area provides important wildlife habitat. Osprey (*Pandion haliaetus*) and bald eagle (*Halieetus leucocephalus*) nest in the area and forage on the fish and waterfowl resources of the bay. Deer (*Odocoileus* sp.) and elk (*Cervus* sp.) herds are known to occur south of the

Spokane River. Several deer and elk fatalities have been recorded along this stretch of the US 95 corridor. Because of constant hunting pressure in the area, preservation of these deer and elk herds is crucial (Corsi 2001).

There are no documented occurrences of threatened or endangered species in the northern half of the study area. A single bald eagle nest is located on Cougar Bay. Bald eagles are listed as a federally threatened species. Human activity can be injurious during the nesting period for bald eagles; therefore, this area should be avoided during project planning. The southern portion of the study area contains habitat for water howellia (*Howellia aquatilis*), Ute ladies tresses (*Spiranthes diluvialis*), and clustered ladies slipper (*Cypripedium fasciculatum*). Coeur d'Alene salamander (*Plethodon vandykei idahoensis*) and westslope cutthroat trout (*Oncorynchus clarkii lewisi*) are also known to occur in the study area (see **Appendix C**). The specific habitat requirements for these plants and animals reduce the potential habitat within the corridor to wetlands, streams, moist stream banks, and shorelines, which would ordinarily be avoided during the design and permitting phase of any project.

4.4 Critical Land Use and Environmental Factors

The following critical factors will play a significant role in the development and refinement of the improvement options, including existing land use and land use zoning; existing facilities, such as roadways, airports, utilities, and railroads; surface water, groundwater, and water quality protection; and topography and geologic hazards.

4.4.1 Elements

- Residential development in northwest Coeur d'Alene and western Hayden create physical barriers and potential community concern regarding any new road connections through the study area.
- The planned concentration of retail along Government Way and US 95 results in continued reliance on auto-oriented services and shopping.
- There are few neighborhood centers outside the corridor that serve as local shopping alternatives for area residents.
- Future planned growth is to the north and west. Without new neighborhood retail, this future development will add to reliance on the commercial corridor.
- Prime agricultural land does not seem to have influenced development; it is prevalent west of the cities within the Rathdrum Prairie. Most development that is occurring in northwest Coeur d'Alene and western Hayden is located on prime farmland.
- A good street grid pattern services the older areas of Coeur d'Alene. Many newer areas are serviced by more typical suburban street patterns (e.g., cul-de-sacs and circuitous roads) that can place additional pressure on arterial streets to serve local and regional traffic.
- There may be potential for increased traffic noise at existing and proposed residences, hospitals, schools, or retirement homes.
- The community has expressed an interest in converting unused railway right-of-way to public trails (Rails-to-Trails).
- Places of historic value that could influence project planning include locations of potentially historic railroads on the Rathdrum Prairie.

4.4.2 Elements

- The Spokane River is a major east-west water feature and resource that crosses US 95 in the center of the corridor.
- Special water resources include the Rathdrum Prairie/Spokane Valley Aquifer and the recharge areas.
- Large, new areas of impervious surface could likely impact recharge of the Rathdrum Prairie/Spokane Valley Aquifer.
- CARAs include all major surface water bodies in the study area: Spokane River, Hayden Lake, Lake Coeur d'Alene, and Avondale Lake.
- Steep topography and rough terrain in the study area south of the Spokane River may make it difficult to construct new highways.
- There are a number of nature conservancy and environmentally sensitive lands under conservation easement in the Blackwell Hill and Cougar Bay areas, on both sides of US 95. These lands will likely constrain options to re-route or significantly widen US 95 in the immediate area.
- Much of the surface bedrock in the southern study area is Columbia River Basalt-Latah Formation Association, which is susceptible to landslides.
- Although limited, the isolated, unique wetlands at Cougar Bay and the Spokane River provide unique wildlife habitat and potentially sensitive plant species habitat.
- A bald eagle nest and eagle use area exists at Cougar Bay.
- The Coeur d'Alene region's natural beauty of forest and water resources provides a unique aesthetic quality that should be preserved.